

## LABORATORY REPORT

Prepared For: Brown & Caldwell  
201 E. Washington St., Ste. 500  
Phoenix, AZ 85004  
Attention: Barbara Sylvester

Project: Florence Copper

Sampled: 09/21/11  
Received: 09/22/11  
Issued: 09/30/11 13:18

NELAP #01109CA Arizona DHS#AZ0728

*The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.*

*This entire report was reviewed and approved for release.*

## CASE NARRATIVE

### LABORATORY ID

PUI1323-01  
PUI1323-02  
PUI1323-03  
PUI1323-04  
PUI1323-05

### CLIENT ID

M6-GU  
M7-GL  
M8-0  
M16-GU  
M20-0

### MATRIX

Water  
Water  
Water  
Water  
Water

**SAMPLE RECEIPT:** Samples were received intact, at 2°C, on ice and with chain of custody documentation.

**HOLDING TIMES:** All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

**PRESERVATION:** Samples requiring preservation were verified prior to sample analysis.

**QA/QC CRITERIA:** All analyses met method criteria, except as noted in the report with data qualifiers.  
N1-Sample filtration for dissolved analytes was performed by laboratory. The regulatory requirement is filtration within fifteen minutes of sampling.

**COMMENTS:** Results that fall between the MDL and RL are 'E4' flagged.

**SUBCONTRACTED:** No analyses were subcontracted to an outside laboratory.

Reviewed By:



TestAmerica Phoenix

Tina Paulauskas  
Project Manager

Brown & Caldwell  
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Report Number: PUI1323

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## DISSOLVED METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: PUI1323-01 (M6-GU - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
<b>Magnesium</b>	EPA 200.7	11I1049	0.20	2.0	<b>4.1</b>	1	09/29/11	09/29/11	
<b>Sample ID: PUI1323-02 (M7-GL - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
<b>Magnesium</b>	EPA 200.7	11I1049	0.20	2.0	ND	1	09/29/11	09/29/11	E8
<b>Sample ID: PUI1323-03 (M8-0 - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
<b>Magnesium</b>	EPA 200.7	11I1049	0.20	2.0	ND	1	09/29/11	09/29/11	E8
<b>Sample ID: PUI1323-04 (M16-GU - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
<b>Magnesium</b>	EPA 200.7	11I1049	0.20	2.0	<b>31</b>	1	09/29/11	09/29/11	
<b>Sample ID: PUI1323-05 (M20-0 - Water)</b>									<b>N1</b>
Reporting Units: mg/l									
<b>Magnesium</b>	EPA 200.7	11I1049	0.20	2.0	<b>7.4</b>	1	09/29/11	09/29/11	

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Project Manager

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## INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
<b>Sample ID: PUI1323-01 (M6-GU - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0808	N/A	0.40	<b>0.67</b>	1	09/22/11	09/23/11	
Sulfate	EPA 300.0	11I0808	N/A	2.00	<b>57.0</b>	1	09/22/11	09/23/11	
Total Dissolved Solids	SM 2540C	11I0974	N/A	20	<b>360</b>	1	09/27/11	09/27/11	
<b>Sample ID: PUI1323-02 (M7-GL - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0808	N/A	0.40	<b>0.92</b>	1	09/22/11	09/23/11	
Sulfate	EPA 300.0	11I0808	N/A	2.00	<b>38.8</b>	1	09/22/11	09/23/11	
Total Dissolved Solids	SM 2540C	11I0974	N/A	20	<b>270</b>	1	09/27/11	09/27/11	
<b>Sample ID: PUI1323-03 (M8-0 - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0808	N/A	0.40	<b>2.2</b>	1	09/22/11	09/23/11	
Sulfate	EPA 300.0	11I0808	N/A	2.00	<b>81.9</b>	1	09/22/11	09/23/11	
Total Dissolved Solids	SM 2540C	11I0974	N/A	20	<b>390</b>	1	09/27/11	09/27/11	
<b>Sample ID: PUI1323-04 (M16-GU - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0808	N/A	0.40	<b>0.49</b>	1	09/22/11	09/23/11	
Sulfate	EPA 300.0	11I0808	N/A	10.0	<b>207</b>	5	09/22/11	09/23/11	
Total Dissolved Solids	SM 2540C	11I0974	N/A	20	<b>950</b>	1	09/27/11	09/27/11	
<b>Sample ID: PUI1323-05 (M20-0 - Water)</b>									
Reporting Units: mg/l									
Fluoride	EPA 300.0	11I0808	N/A	0.40	<b>0.83</b>	1	09/22/11	09/23/11	
Sulfate	EPA 300.0	11I0808	N/A	2.00	<b>73.3</b>	1	09/22/11	09/23/11	
Total Dissolved Solids	SM 2540C	11I0974	N/A	20	<b>450</b>	1	09/27/11	09/27/11	

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Project Manager

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## METHOD BLANK/QC DATA

### DISSOLVED METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b>Batch: 11I1049 Extracted: 09/29/11</b>											
<b>Blank Analyzed: 09/29/2011 (11I1049-BLK1)</b>											
Magnesium	ND	2.0	0.20	mg/l							
<b>Blank Analyzed: 09/29/2011 (11I1049-BLK2)</b>											
Magnesium	ND	2.0	0.20	mg/l							
<b>Blank Analyzed: 09/29/2011 (11I1049-BLK3)</b>											
Magnesium	ND	2.0	0.20	mg/l							
<b>LCS Analyzed: 09/29/2011 (11I1049-BS1)</b>											
Magnesium	21.7	2.0	0.20	mg/l	21.0		103	85-115			
<b>LCS Dup Analyzed: 09/29/2011 (11I1049-BSD1)</b>											
Magnesium	21.4	2.0	0.20	mg/l	21.0		102	85-115	2	20	
<b>Matrix Spike Analyzed: 09/29/2011 (11I1049-MS1)</b>											
					<b>Source: PUI1339-04</b>						
Magnesium	23.3	2.0	0.20	mg/l	21.0	1.46	104	70-130			
<b>Matrix Spike Analyzed: 09/29/2011 (11I1049-MS2)</b>											
					<b>Source: PUI1451-01</b>						
Magnesium	43.1	2.0	0.20	mg/l	21.0	21.8	102	70-130			
<b>Matrix Spike Dup Analyzed: 09/29/2011 (11I1049-MSD1)</b>											
					<b>Source: PUI1339-04</b>						
Magnesium	22.9	2.0	0.20	mg/l	21.0	1.46	102	70-130	2	20	
<b>Matrix Spike Dup Analyzed: 09/29/2011 (11I1049-MSD2)</b>											
					<b>Source: PUI1451-01</b>						
Magnesium	43.1	2.0	0.20	mg/l	21.0	21.8	101	70-130	0.06	20	

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC	Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 11I0808 Extracted: 09/22/11</u></b>											
<b>Blank Analyzed: 09/23/2011 (11I0808-BLK1)</b>											
Fluoride	ND	0.40	N/A	mg/l							
Sulfate	ND	2.00	N/A	mg/l							
<b>LCS Analyzed: 09/23/2011 (11I0808-BS1)</b>											
Fluoride	4.14	0.40	N/A	mg/l	4.00		103	90-110			
Sulfate	21.2	2.00	N/A	mg/l	20.0		106	90-110			
<b>LCS Dup Analyzed: 09/23/2011 (11I0808-BSD1)</b>											
Fluoride	4.14	0.40	N/A	mg/l	4.00		104	90-110	0.07	20	
Sulfate	21.1	2.00	N/A	mg/l	20.0		106	90-110	0.4	15	
<b>Matrix Spike Analyzed: 09/23/2011 (11I0808-MS1)</b>						<b>Source: PUI1363-02</b>					
Fluoride	4.30	0.40	N/A	mg/l	4.00	ND	107	80-120			
Sulfate	22.1	2.00	N/A	mg/l	20.0	0.124	110	80-120			
<b>Matrix Spike Dup Analyzed: 09/23/2011 (11I0808-MSD1)</b>						<b>Source: PUI1363-02</b>					
Fluoride	4.42	0.40	N/A	mg/l	4.00	ND	110	80-120	3	20	
Sulfate	22.5	2.00	N/A	mg/l	20.0	0.124	112	80-120	2	15	
<b><u>Batch: 11I0974 Extracted: 09/27/11</u></b>											
<b>Blank Analyzed: 09/27/2011 (11I0974-BLK1)</b>											
Total Dissolved Solids	ND	20	N/A	mg/l							
<b>LCS Analyzed: 09/27/2011 (11I0974-BS1)</b>											
Total Dissolved Solids	956	20	N/A	mg/l	1000		96	80-115			

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## METHOD BLANK/QC DATA

### INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
<b><u>Batch: 11I0974 Extracted: 09/27/11</u></b>										
<b>LCS Dup Analyzed: 09/27/2011 (11I0974-BSD1)</b>										
Total Dissolved Solids	954	20	N/A	mg/l	1000		95 80-115	0.2	10	
<b>Duplicate Analyzed: 09/27/2011 (11I0974-DUP1)</b>										
Total Dissolved Solids	346	20	N/A	mg/l		Source: PUI1323-01 358		3	10	
<b>Duplicate Analyzed: 09/27/2011 (11I0974-DUP2)</b>										
Total Dissolved Solids	634	20	N/A	mg/l		Source: PUI1355-04 634		0	10	

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## DATA QUALIFIERS AND DEFINITIONS

**E8** Analyte reported to the MDL per project specification. Target analyte was not detected in the sample.  
**N1** See case narrative.  
**ND** Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.  
**RPD** Relative Percent Difference

**TestAmerica Phoenix**

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## Certification Summary

### TestAmerica Phoenix

Method	Matrix	Nelac	Arizona
EPA 200.7	Water		X
EPA 300.0	Water		X
SM 2540C	Water		X

*Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at [www.testamericainc.com](http://www.testamericainc.com)*

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# TestAmerica

## CHAIN OF CUSTODY FORM

PUT 1323

THE LEADER IN ENVIRONMENTAL TESTING

TAL-0013-560 (10/10)

Phoenix - 4625 E. Cotton Center Blvd., Suite 189, Phoenix, AZ 85040 (602) 437-3340 FAX (602) 454-9303  
Tucson - 1870 W. Prince Road, Suite 59, Tucson, AZ 85705 (520) 807-3801 FAX (520) 807-3803  
Las Vegas - 6000 S Eastern Ave., Suite 5E, Las Vegas, NV 89119 (702) 429-1264

Page 1 of 1

Client Name/Address: Brown And Caldwell 201 E. Washington St Phoenix, Arizona 85004			Project/PO Number: Florence Copper			Analysis Required					
Project Manager: Barb Sylvester			Phone Number: 602.567.4000								
Sample: Michael E. Orca			Fax Number: 602.567.4001								
Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives					
M6-G4	Gul	500 ml	2	9/21/14	0935	NP/ice	X	X	-01		
M7-G4	Gul	1	2	1104			X	X	-02		
M8-G4	Gul	1	2	1223			X	X	-03		
M16-G4	Gul	1	2	0805			X	X	-04		
M20-G4	Gul	1	2	1405			X	X	-05		
F, TDS, SO4 Mg (Lab to Filter)											
Lab to Filter and pres. Mg samples											
Billing to Gun3 Resources											
Relinquished By: <u>[Signature]</u>			Date/Time: <u>9/22/14</u> <u>7:45</u>			Received By: <u>[Signature]</u>			Date/Time: <u>9/22/14</u> <u>7:45</u>		
Relinquished By: <u>[Signature]</u>			Date/Time: <u>9/22/14</u> <u>7:45</u>			Received By: <u>[Signature]</u>			Date/Time: <u>9/22/14</u> <u>7:45</u>		
Relinquished By: <u>[Signature]</u>			Date/Time: <u>9/22/14</u> <u>7:45</u>			Received By: <u>[Signature]</u>			Date/Time: <u>9/22/14</u> <u>7:45</u>		
Turnaround Time: (Check) same day _____ 24 hours _____ 48 hours _____			Sample Integrity: (Check) intact <u>2</u> on ice <u>2</u>								

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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